DATA BANK BACKUP DEVICE

USER MANUAL

(Version 1.0)

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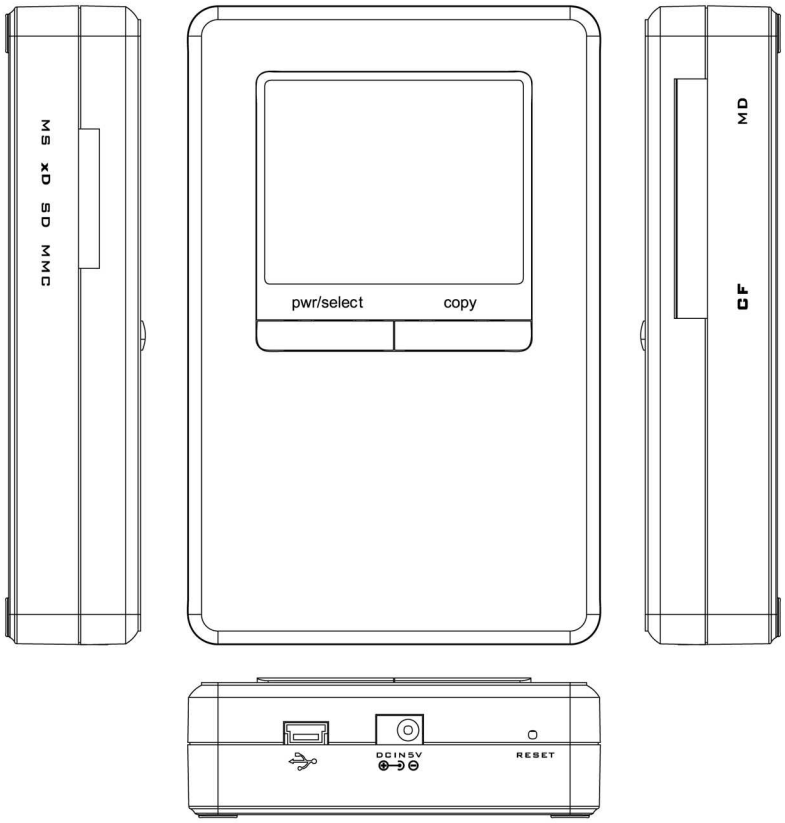
INTRODUCTION



The Data Bank Backup Device is an integrated solution that provides external hard disk drive, card reader and memory card backup functions. As a portable external storage device, it is a perfect choice for active mobile users providing a light and optimal solution for personal information storage and transfer. Any PC with a USB port is enough for user to access documents, music, images, or any other data stored in the internal hard disk drive. In addition, The device also acts as an all-in-one card reader supporting all major memory card types. More importantly, it enhances the mobile users by enabling them to copy the content of a memory card into the internal hard disk drive without a PC or notebook. This function allows the users to easily free up more expensive memory cards for re-use in the field.

The device supports Compact Flash (CF), MicroDrives, Secure Digital Card (SD), Multimedia Card (MMC), Memory Stick (MS), Memory Stick PRO/DUO. USB connection to PC is achieved using USB 2.0 High Speed (480Mbps) link.

It is powered by a rechargeable Lithium-ion battery.

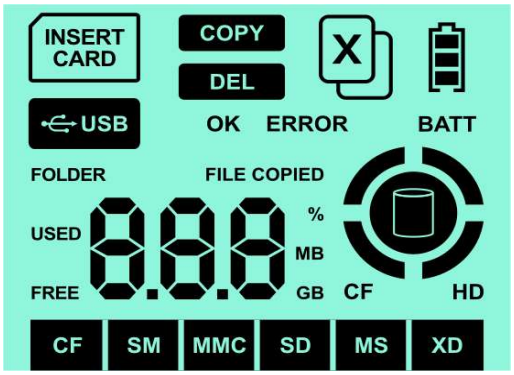
Chapter 1 : FUNCTIONAL DESCRIPTION

This section describe the various parts and functions of the device. You may refer to Chapter 3 : User Interface Description for detail description.

1.1 Buttons

Button	Activation	Operation
[POWER/SELECT]	Press & Hold Press & Hold Press	Power On Power Off To select the the device operations
[Copy]	Press	To execute the selected operation

1.2 LCD Display



1.3 Connectors

No.	Definition	Purpose
CON 1	Mini USB connector	Connect to PC USB 1.0 or 2.0 port
CON 2	Memory Card connector # 2	Memory Card slot for SD / MMC / MS
CON 3	Memory Card connector # 1	Memory card slot for Compact Flash / Micro Drive
CON 4	HDD connector	For 2.5” Hard disk drive
CON 5	DC Socket	5-volt DC input for charging Li-ion battery

Chapter 2 : PRODUCT SPECIFICATIONS

2.1 Technical Specification

Copy mode Data Transfer Rate	CF to HDD : 3MBps SD to HDD : 2.5MBps (2x) , 3.4MBps (ultra speed) MMC to HDD : 1 MBps MS to HDD : 1 MBps MS Pro to HDD : 3.5 MBps
USB Transfer Rate	This is a high speed USB device. Hard disk operates in UDMA mode
Operating OS	Windows 98SE, ME, XP, 2K, Mac X (above)
Features	File System: FAT12, FAT16 or FAT32 Long Filename: Max 256 character, Support Unicode character Auto sleep: 30seconds (copy) Card reader cum external hard disk storage
USB compliance	USB 1.0, 2.0

2.2 Electrical Specifications

Operating Condition	Temperature : 0C ~ 70C, Relative Humidity : 90% (max)
Power Input	Lithium-Ion Battery, 3.6-volt 1200mAH
Operating Current	80mA (Idling) 100uA (shutdown) 800mA (depend on hard disk startup) 500mA (depend on hard disk read/write) 480mA (charge through USB) 820mA (charge through DC)

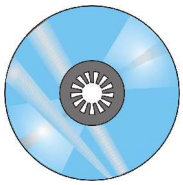
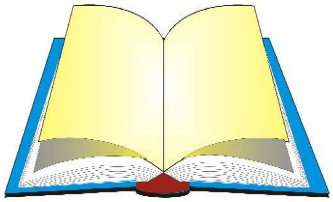
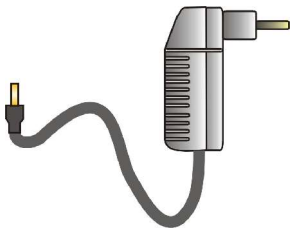
2.3 Product Dimension

Weight	145gm / 245gm (with HDD)
Size	116 x 75 x 25 mm

2.4 Minimum System Requirement

PC	IBM Compatible PC
CPU	Pentium III (and above)
RAM	128 MB
USB Port	USB1.0 or 2.0
HDD space	20MB available
OS	Microsoft Windows 98SE / ME / XP / 2000 Mac OS X

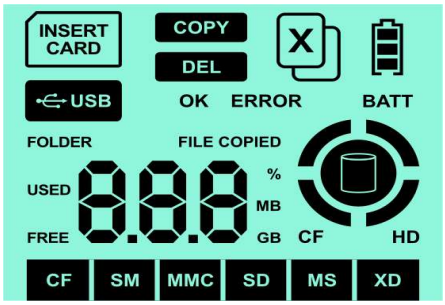
2.5 Bundled Accessories

USB cable	 Installation CD	 Quick Installation Guide
 AC/DC Adaptor (or USB to DC Charging Cable)		

Chapter 3 : USER INTERFACE DESCRIPTION

3.1 Button Description

Button	Activation	Operation Mode	Description
[POWER/ SELECT]	Press Hold	Standalone	Press and hold this button for 3 seconds to power ON/OFF the device.
[POWER/ SELECT]	Press	Standalone	Press to select the operations (eg. COPY, DELETE)
[COPY]	Press	Standalone	Press this button to execute the selected operation (eg. COPY, DELETE)
[RESET]	Press	Standalone	Press this button once to reset the device



On the left is the full display of the LCD, which show various status mode :

- type of memory cards inserted,

- available HDD space, and data size of the memory cards,

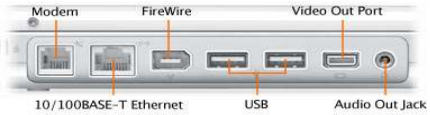
- copy status in percentage,

- battery power level, etc ...

3.2 Connectors Description

3.2.1 Mini USB connector

Plug in the mini USB cable into this connector and the other end of the cable to the PC or the notebook's USB port. Use the mini USB cable that bundle with this device. The device is compliance to USB 2.0 as well as USB1.0 specification.



Notebook connector view

3.2.2 SD/MMC/MS/SMC Memory Card Slot

This slot supports memory card such as Secure Digital card, Multimedia card, Memory Stick, Memory stick PRO. The device also functions as a memory card reader when connected to the PC via USB connection. It also supports other mini-sized memory cards such as Memory Stick DUO, Memory Stick PRO DUO, RS MMC, MMC mobile and mini Secure Digital card through a memory card adaptor.

3.2.3 Compact Flash Memory Card Slot

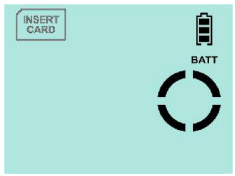
This slot supports Compact Flash Type I and II, as well as MicroDrive card.

3.2.4 44-pin Connector

Install the 2.5” Hard disk drive into this connector as shown in the picture below. Ensure that the hard disk drive is connected in the correct direction.

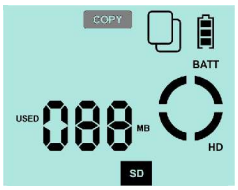
Chapter 4 : DEVICE OPERATION

4.1 Standalone Mode (Copy)



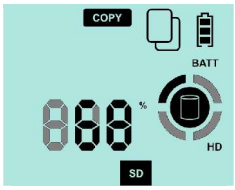
Step 1 :

Power ON the device by pressing **[POWER]** *button for 3 seconds. The LCD will turn on, the* {**INSERT CARD**} *icon will flash prompting you to insert a Memory Card.*



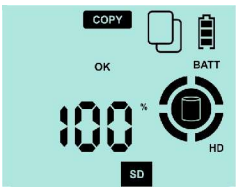
Step 2 :

Insert the memory card (eg. SD card) into the appropriate media slot, the device will detect the type of Memory Card inserted, and its data size and show them on the LCD. The **{COPY}** *icon will flash prompting that the device is ready for data backup.*



Step 3 :

Press the copy button to start copy, the LCD icons will display the operating status, indicating the percentage of data being copied.

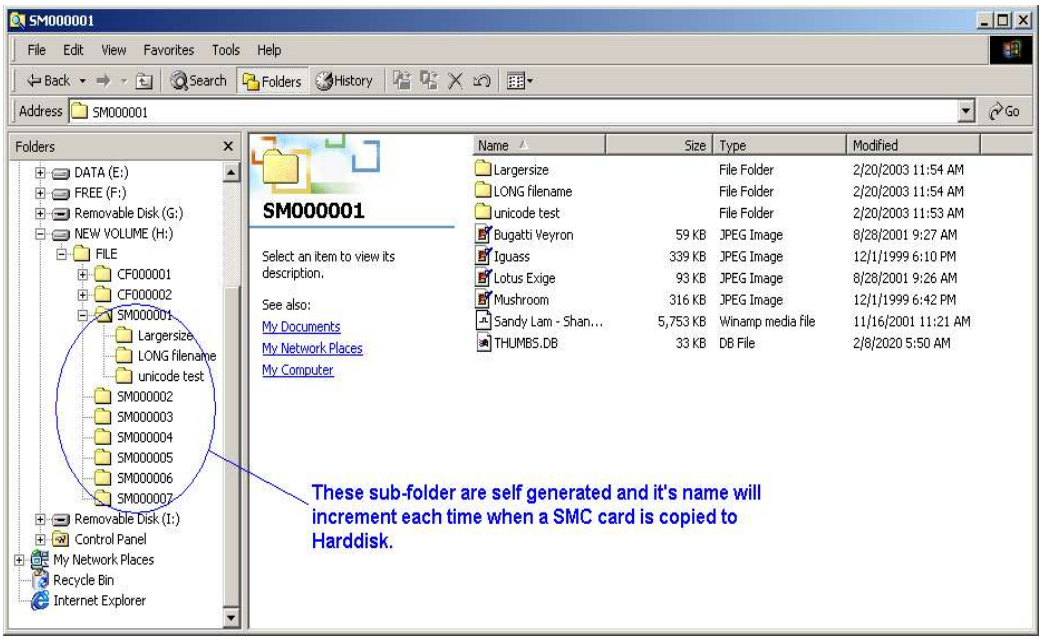


Step 4 :

When copy is completed, the LCD will display the **{OK}** *and* **{100%}** *icons, indicating the data is copied. You may remove the memory card and turn OFF the device by pressing (for 3 seconds) the* **[POWER]** *button unit the LCD is turned OFF .*

- During copy, the content of the memory card is copied to the hard disk. Both Memory Card and Hard Disk Drive is being accessed and copy is in progress. A default directory **[FILE]** is created in the hard disk Root Directory and the respective sub-folder for various type of Memory Cards will be created in the format as follows :

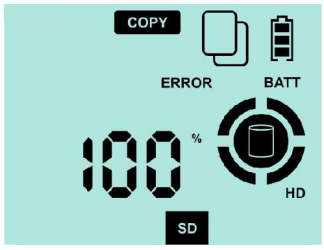
  Compact Flash (CF) : starting **[CF000001]**
  Secured Digital (SD) : starting **[SD000001]**
  Multimedia Memory (MMC) : starting **[MC000001]**
  Memory Stick (MS) : starting **[MS000001]**



If an error occurs during copy, the **[ERROR]** icon will appear on the LCD, you may then repeat the copy sequence. When a copy error occurs, the sub-folder created in the **[FILE]** directory is empty, you may ignore and delete it.

Note :

In the unlikely event that the data backup fail, the copy operation will stop, and the **{ERROR}** *icon will show on the LCD, you may choose to repeat the operation.*

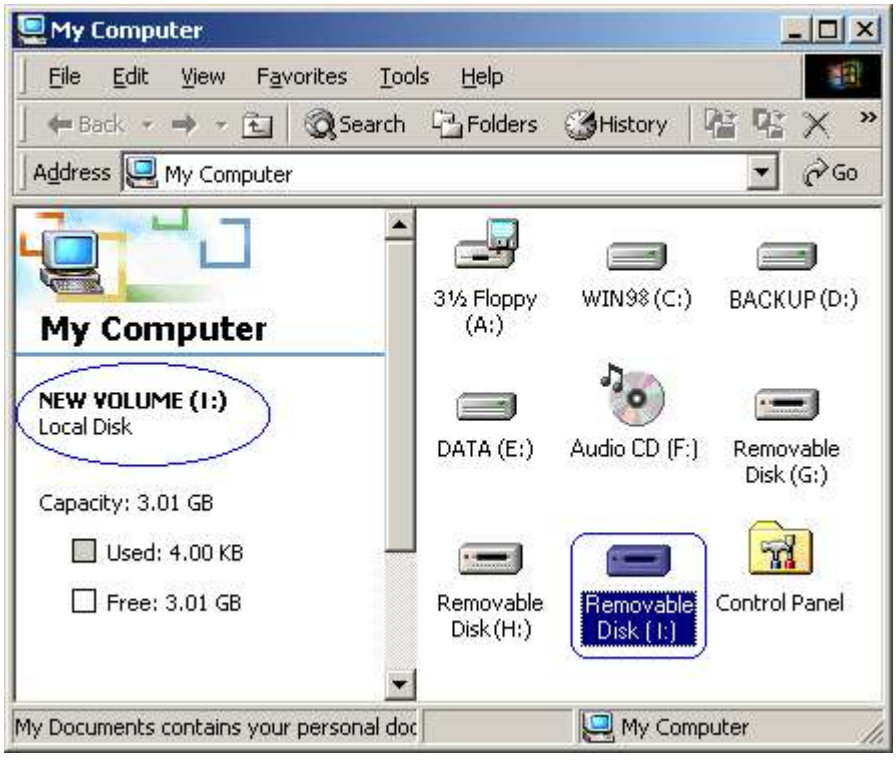


NOTE : *The device Standalone Copy Mode support only FAT file system. Error will occur if your Memory Cards or HDD is NTFS formatted.*

4.2 USB mode

- Connect the device to the PC via USB connection.

- The system will detect the device. Refer to the "Window Installation" section if you have not installed the Device Driver in the PC (for Windows 98se).
- 3 icons will appear on the "My Computer" screen.
- Click on the **Local disk** icon or the **Removable disk** icon on the *My Computer* screen to access the information on the storage media.



- The device will automatically shutdown once the USB cable is unplugged from the device.

Chatper 5 : WINDOWS 98SE/ME INSTALLATION

5.1 Operating System Supported

- Windows™ 98 Second Edition (SE) or Windows™ Millennium Edition (ME)
- The device driver can be found in the "Win98SE Driver" directory in the Installation CD

5.2 Install Device Driver on Windows 98 SE / ME

- Connect the device to PC via USB connection.

- Power up the device. The system will detect "*NEW HARDWARE FOUND*" and prompt user to install the device driver.

  - Load the CD-ROM Installation Disk,

Add New Hardware Wizard
This wizard searches for new drivers for:
EZ-DRIVE II
A device driver is a software program that makes a hardware device work.
< Back
Next >
Cancel

- Tick on "*Search for best driver for your new device*" and click *Next*..

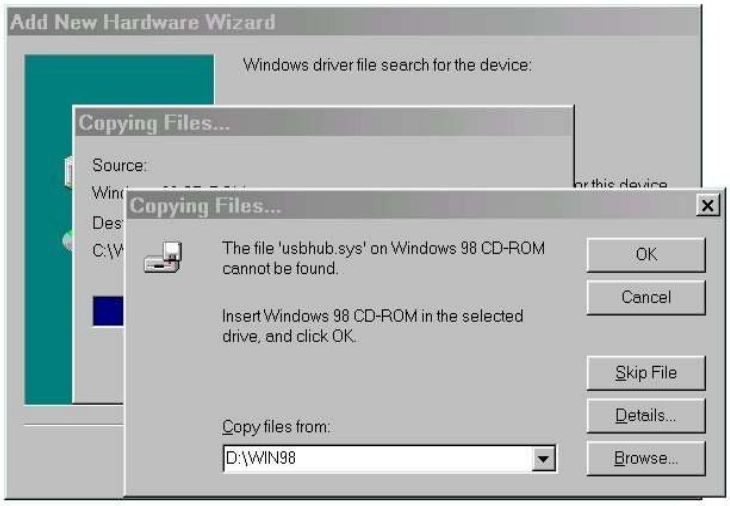
Add New Hardware Wizard
What do you want Windows to do?
Search for the best driver for your device. (Recommended).
Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back
Next >
Cancel

- Select the directory path "*F:\Win98SE driver*" (where F:\ is your CD-ROM drive) and click *Next*

Add New Hardware Wizard
Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
Floppy disk drives
CD-ROM drive
Microsoft Windows Update
Specify a location:
F:\win98SE driver
Browse...
< Back
Next >
Cancel

- Follow through the online instruction …

Add New Hardware Wizard
Windows driver file search for the device:
USB 2.0 EzDrive II
Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.
Location of driver:
F:\WIN98S~1\EZII98.INF
< Back
Next >
Cancel

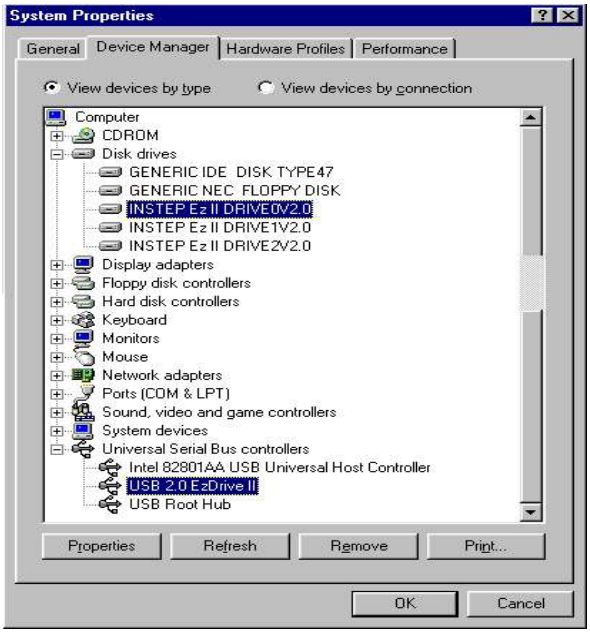


Add New Hardware Wizard
USB 2.0 EzDrive II
Windows has finished installing the software that your new hardware device requires.
< Back
Finish
Cancel

- Upon installation of the device driver, you will notice 3 icons appear on the "My Computer" screen. Refer the section on "Installing new hard disk on Win98SE / ME & configure new hard disk drive in Win98SE / ME" if user do not see your hard disk drive icon.

5.3 Verify Win98SE/ ME has properly installed the device driver

- Click on the *My Computer* icon by right-click on the mouse.
- Select the *Properties* item.
- Choose the *Device Manager* selection
- Double click the *Disk drives* item.
- And check the three *INSTEP EzII DRIVE* have installed.
- Double click the *Universal serial bus*
- *Controller* item.
- And check the *USB 2.0 EzDrive II* has installed.



5.4 Troubleshoot

- Click on *My Computer* icon by right-click on the mouse.
- Select the *Properties* item.
- Choose the *Device Manager* selection
- Double click the *others* item and check if *USB 2.0 EzDrive II* is mark with
  - an exclamation mark.
- Click on the item mark with an exclamation mark and then click *Remove*,
  - *Refresh*.
- The windows will prompt for device driver again.

5.5 Installing New HDD on Windows 98SE / ME

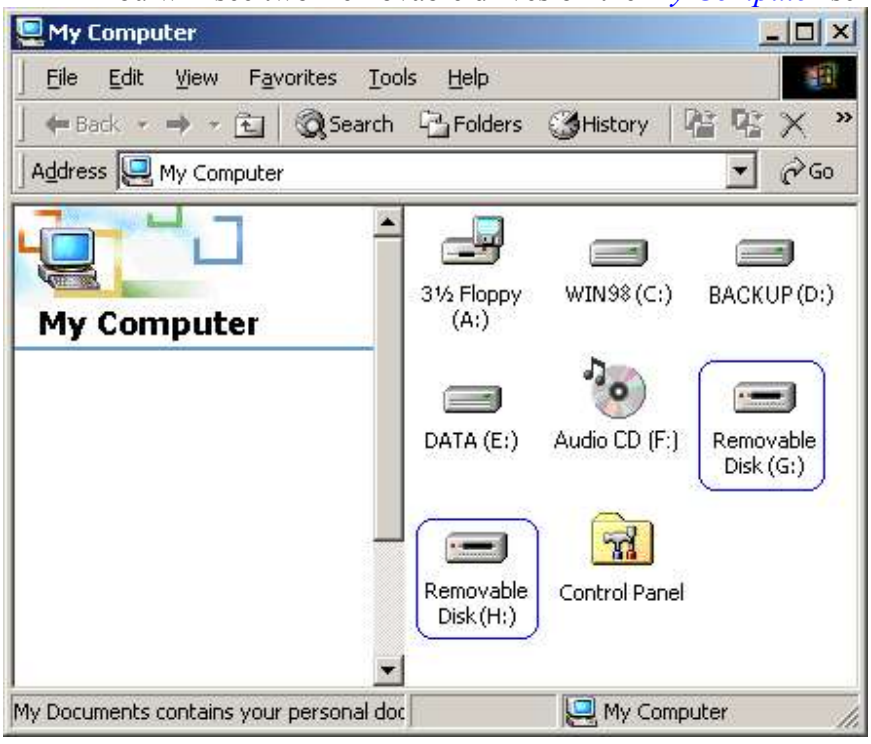
- When a new HDD is installed to this device, Windows 98SE or ME cannot recognize it as local drive because the new HDD does not contain the Master Boot Record and Primary Partition Record information.

  - User can either use Windows 2000 or XP system to create hard disk drive Master Boot Record & Primary Partition Record, or
  - User can use Window98SE /ME to configure the new hard disk drive as a Removable drive. Windows 98SE /ME will enumerate the HDD as a Removable drive instead of Local drive.

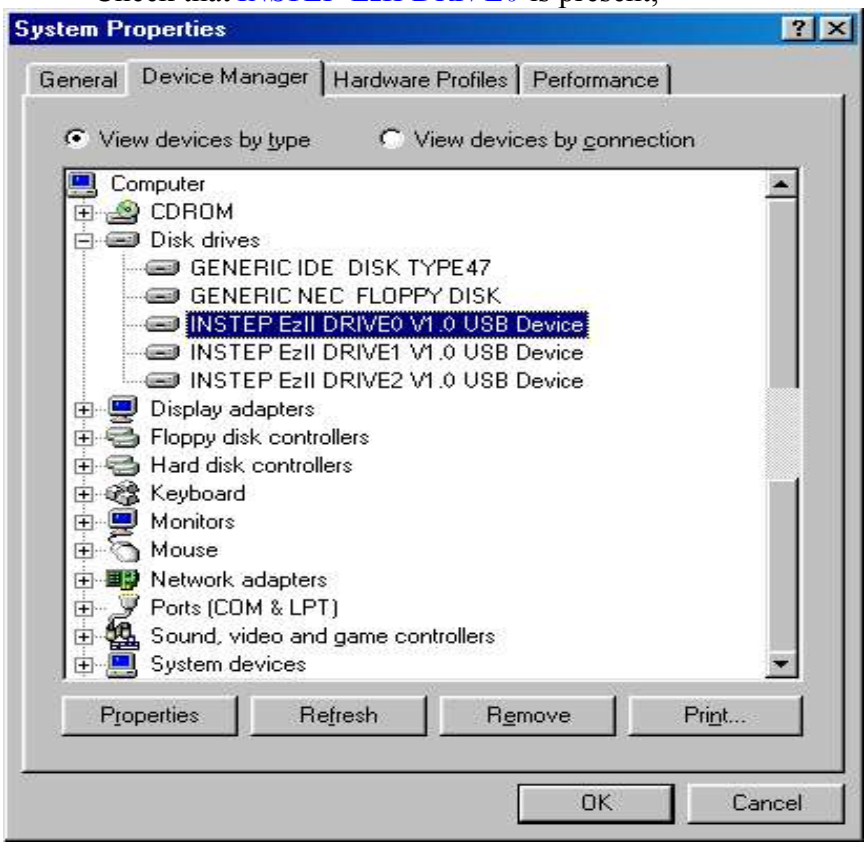
- Follow the step to configure the new HDD before format the hard disk drive. (Old data will be destroy)

5.6 Configure new hard disk in Win98SE / ME

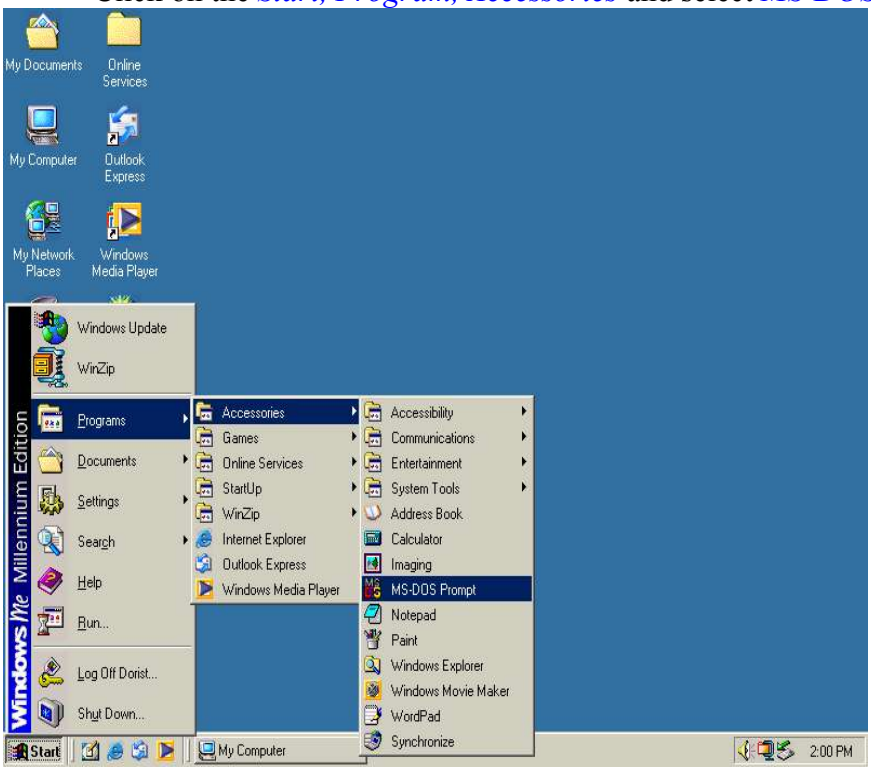
- Click on the "*My Computer*" icon by right-click on the mouse,
- Select the *Properties* item,
- Choose the *Device Manager* selection,
- Double click he *Disk drivers* item,
- Check the *INSTEP EzII DRIVE0* is present,
- You will see two Removable drives on the *My Computer* screen.



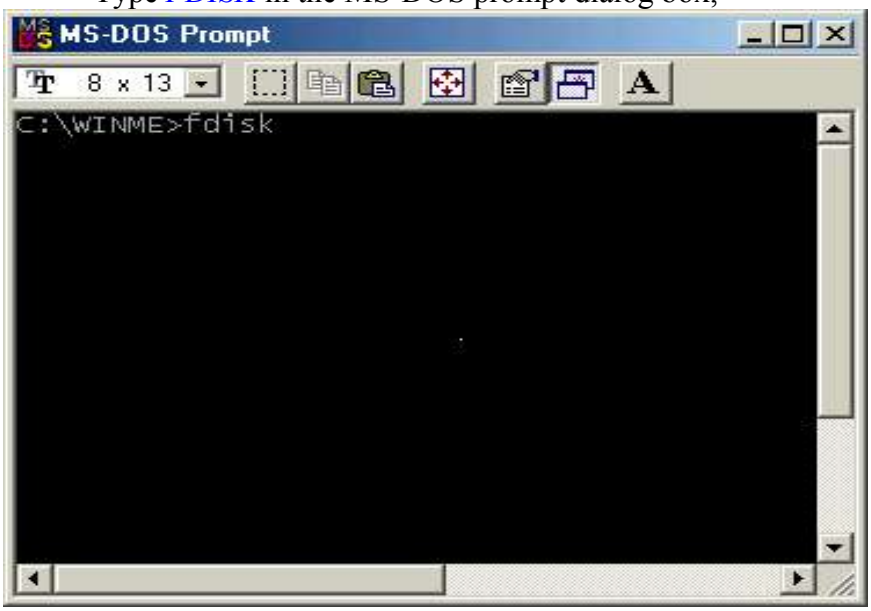
- Check that *INSTEP EzII DRIVE0* is present,



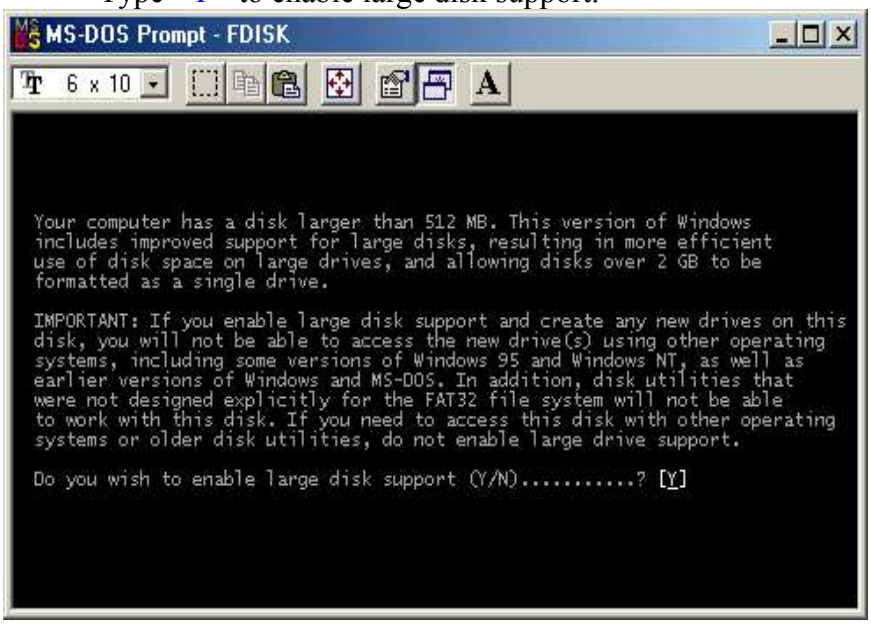
- Click on the *Start, Program, Accessories* and select *MS-DOS prompt* item,



- Type *FDISK* in the MS-DOS prompt dialog box,



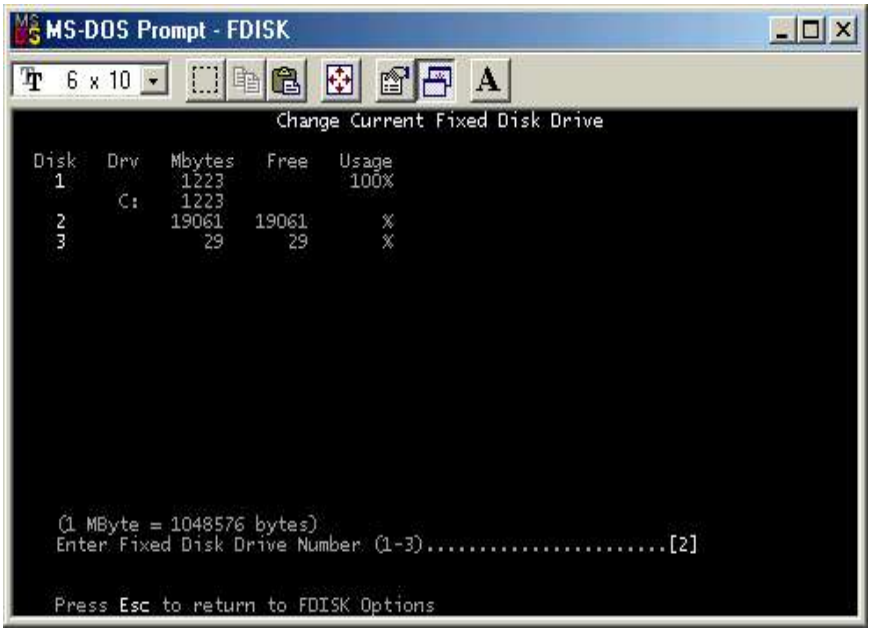
- If you cannot get to this screen, reboot the system and try again.
  Type <Y> to enable large disk support.


MS-DOS Prompt - FDISK
6 x 10
Your computer has a disk larger than 512 MB. This version of Windows includes improved support for large disks, resulting in more efficient use of disk space on large drives, and allowing disks over 2 GB to be formatted as a single drive.
IMPORTANT: If you enable large disk support and create any new drives on this disk, you will not be able to access the new drive(s) using other operating systems, including some versions of Windows 95 and Windows NT, as well as earlier versions of Windows and MS-DOS. In addition, disk utilities that were not designed explicitly for the FAT32 file system will not be able to work with this disk. If you need to access this disk with other operating systems or older disk utilities, do not enable large drive support.
Do you wish to enable large disk support (Y/N).....? [Y]

- Enter the choice <5> to change current fixed disk drive,

MS-DOS Prompt - FDISK
6 x 10
Microsoft Windows Millennium
Fixed Disk Setup Program
(C)Copyright Microsoft Corp. 1983 - 2000
FDISK Options
Current fixed disk drive: 1
Choose one of the following:
1. Create DOS partition or Logical DOS Drive
2. Set active partition
3. Delete partition or Logical DOS Drive
4. Display partition information
5. Change current fixed disk drive
Enter choice: [5]
Press Esc to exit FDISK

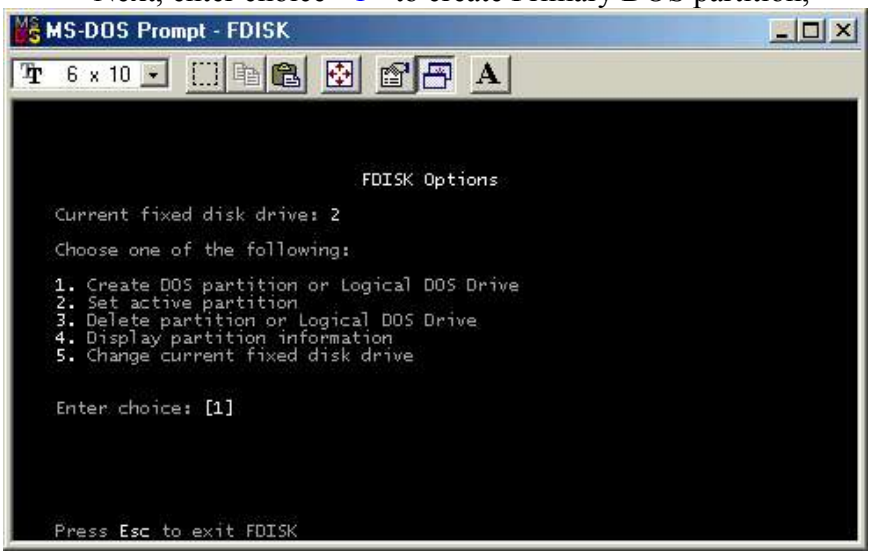
- 1~3 will depend on the number of HDD present in the computer. Since 20GB HDD is used in this example, enter the choice <2> to change the current fixed disk drive.


MS-DOS Prompt - FDISK
6 x 10
Change Current Fixed Disk Drive
Disk Drv Mbytes Free Usage
1 1223 100%
C: 1223
2 19061 19061 %
3 29 29 %
(1 MByte = 1048576 bytes)
Enter Fixed Disk Drive Number (1-3).....[2]
Press Esc to return to FDISK Options

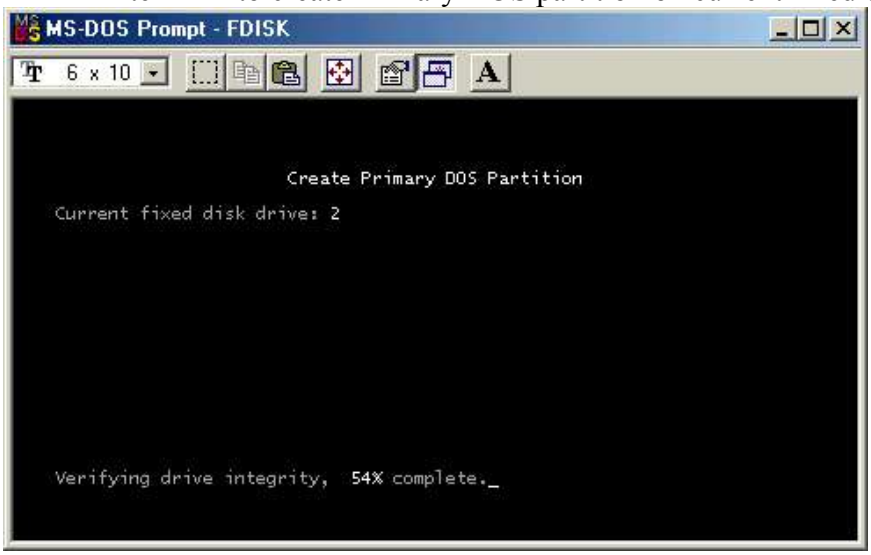
- Next, enter choice <1> to create DOS partition or logical DOS Drive,

MS-DOS Prompt - FDISK
6 x 10
FDISK Options
Current fixed disk drive: 2
Choose one of the following:
1. Create DOS partition or Logical DOS Drive
2. Set active partition
3. Delete partition or Logical DOS Drive
4. Display partition information
5. Change current fixed disk drive
Enter choice: [1]
Press Esc to exit FDISK

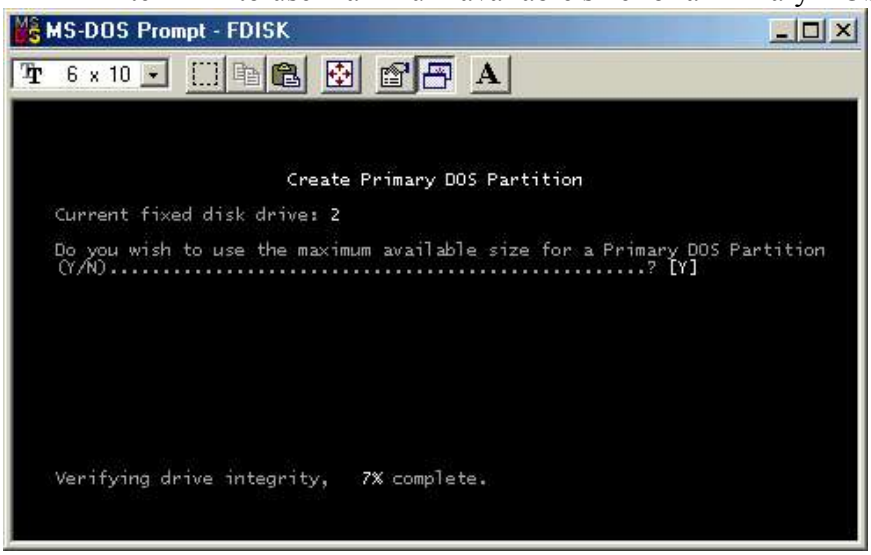
- Next, enter choice <1> to create Primary DOS partition,


MS-DOS Prompt - FDISK
6 x 10
FDISK Options
Current fixed disk drive: 2
Choose one of the following:
1. Create DOS partition or Logical DOS Drive
2. Set active partition
3. Delete partition or Logical DOS Drive
4. Display partition information
5. Change current fixed disk drive
Enter choice: [1]
Press Esc to exit FDISK

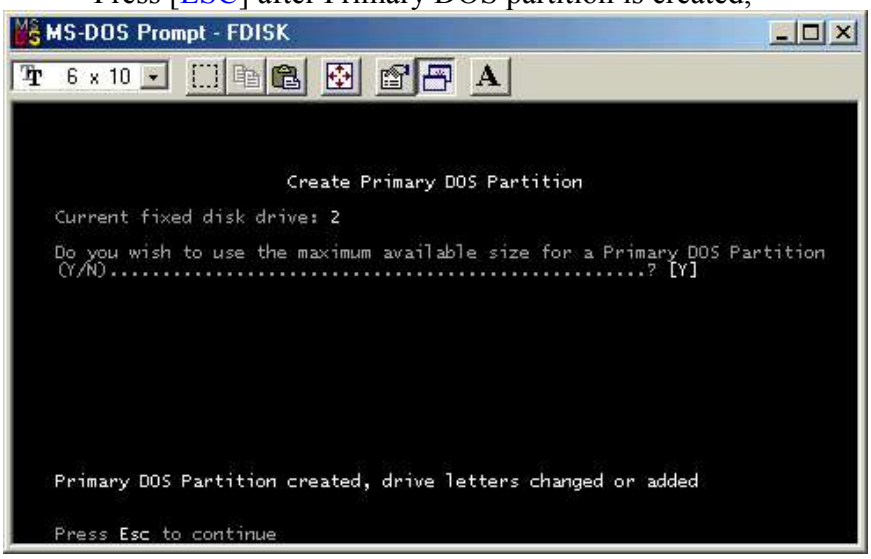
- Enter <Y> to create Primary DOS partition on current fixed disk drive 2,


MS-DOS Prompt - FDISK
6 x 10
Create Primary DOS Partition
Current fixed disk drive: 2
Verifying drive integrity, 54% complete._

- Enter <Y> to use maximum available size for a Primary DOS partition,


MS-DOS Prompt - FDISK
6 x 10
Create Primary DOS Partition
Current fixed disk drive: 2
Do you wish to use the maximum available size for a Primary DOS Partition
(Y/N).....? [Y]
Verifying drive integrity, 7% complete.

- Press [ESC] after Primary DOS partition is created,

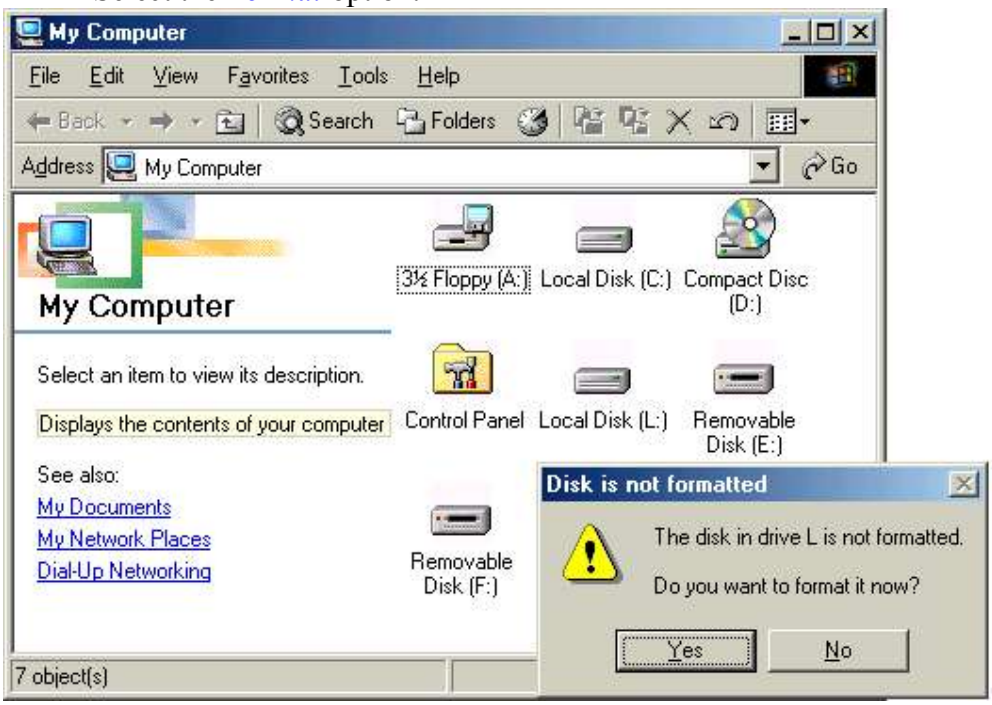

MS-DOS Prompt - FDISK
6 x 10
Create Primary DOS Partition
Current fixed disk drive: 2
Do you wish to use the maximum available size for a Primary DOS Partition
(Y/N).....? [Y]
Primary DOS Partition created, drive letters changed or added
Press Esc to continue

- Press [ESC] to exit fdisk, you must then **Reboot** the computer.

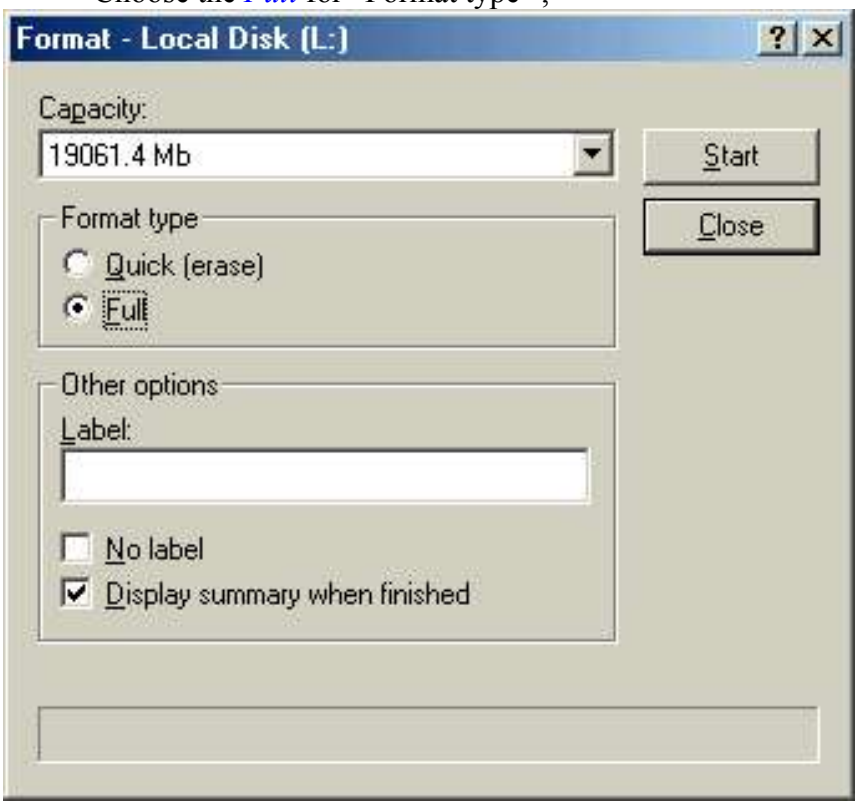
MS-DOS Prompt - FDISK
6 x 10
You MUST restart your system for your changes to take effect.
Any drives you have created or changed must be formatted
AFTER you restart.
Shut down Windows before restarting.
Press Esc to exit FDISK

5.7 Format New HDD in Windows 98SE / ME

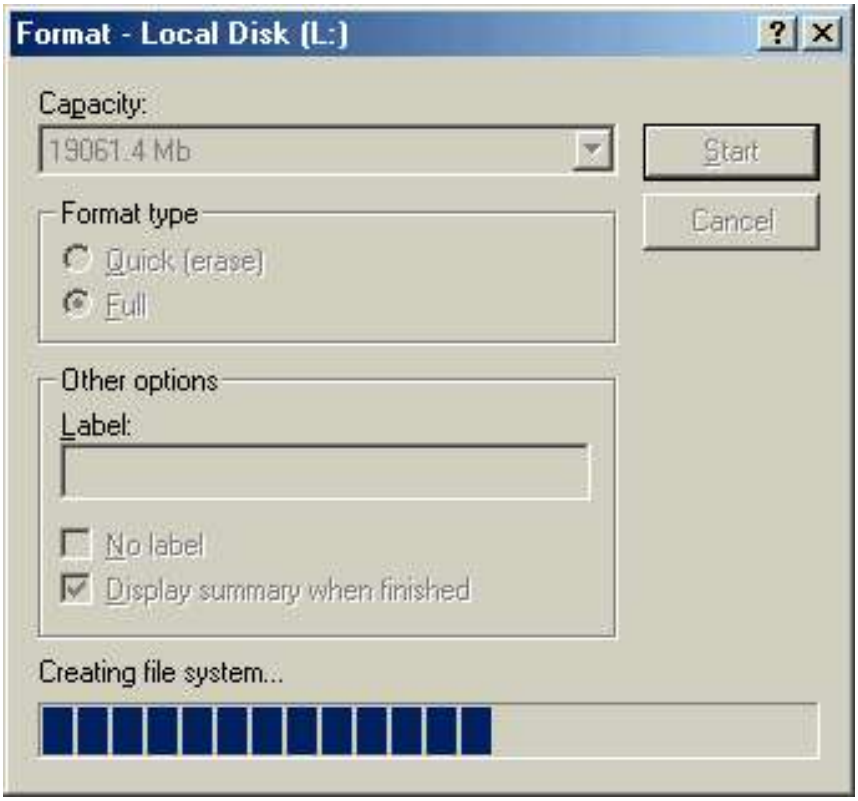
- You must reboot the computer after perform fdisk. Ensure the new HDD is enumerated and the OS will assigned a letter to the new HDD.
- Reboot the computer again once the computer has successfully detected the new HDD before formatting it,
- Click on the new *Local Disk (L:)* icon by right-button mouse,
- Select the *Format* option.



- Choose the *Full* for “Format type” ,



- You will notice the new HDD is formatting ,
- **Reboot** the computer again to let the OS initialize the new formatted HDD.



Chapter 6 : WINDOWS 200x / XP INSTALLATION

6.1 Operating System Supported

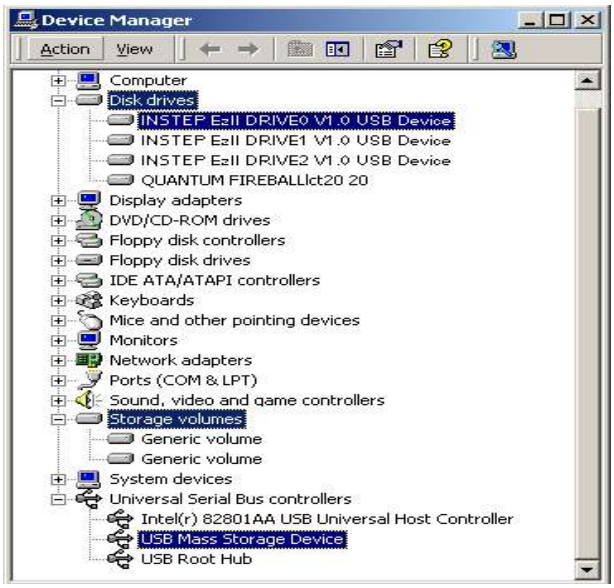
- Windows™ 2K & Windows™ XP
- Supported by Microsoft default driver. (Requires service pack from Microsoft Windows Update website)

6.2 Verify windows has properly installed the device driver

- Connect the device to PC via USB connection.

- Turn ON the device. Windows will detect "*NEW HARDWARE FOUND*" and the Operating System (OS) will automatically install the Mass Storage device driver. The Window OS will initialize the Memory Card Reader as Removable drive and the hard disk as Local drive.

- ❑ Click on the *My Computer* icon by right-click on the mouse.
- ❑ Select the *Properties* item.
- ❑ Choose the *Device Manager* selection
- ❑ Double click on the *Disk Drives* item
- ❑ And check the three *INSTEP EzII DRIVE* have installed.
- ❑ Double click on the *Storage volumes* item.
- ❑ And check the *Generic volume* properly installed.
- ❑ Double click on the *Universal serial bus controller* item.
- ❑ And check the *USB Mass Storage Device* has installed.



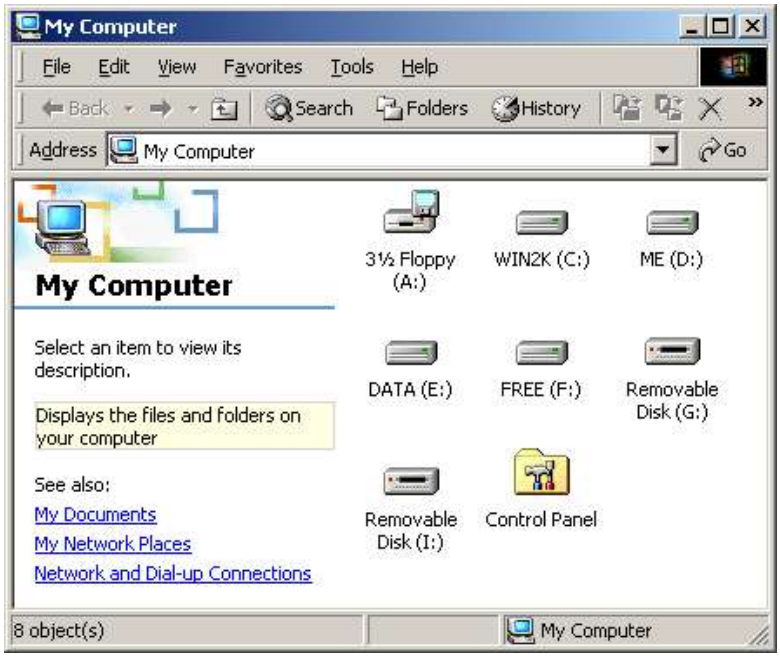
- Upon installation, you will notice 3 icons appear on the "*My Computer*" screen. Refer to the section on "Create Master Boot Record on the new hard disk & Create Primary Partition Record on the new hard disk" if user do not see the hard disk drive icon.

6.3 Troubleshoot

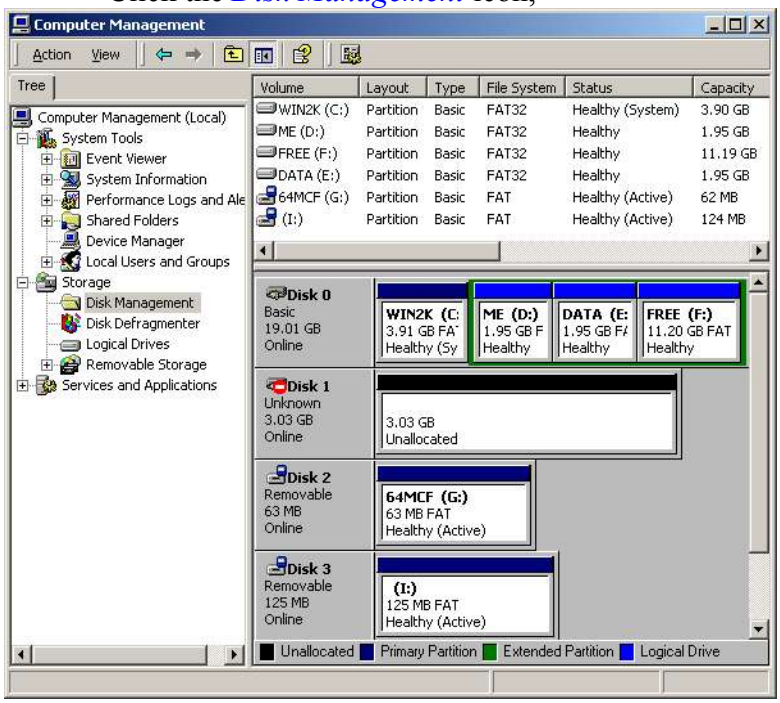
- Click on the *My Computer* icon by right-click on the mouse.
- Select the *Properties* item.
- Choose the *Device Manager* selection
- Double click the *Universal serial bus controller* and check the *USB Mass Storage Device* is mark with an exclamation mark.
- Click on the item mark with an exclamation mark and then click *Remove*,*Refresh*.
- The windows will prompt for device drive again.

6.4 Create Master Boot Record on the new hard disk.

- Login the PC as *Administrator*,
- Click on the *My Computer* icon by right-click on the mouse and choose the *Manager* item,
- Or click on the *Control Panel* icon and follow by *Administrative tools*.



- Click the *Disk Management* icon,


Computer Management
Action View
Tree
Computer Management (Local)
System Tools
Event Viewer
System Information
Performance Logs and Ale
Shared Folders
Device Manager
Local Users and Groups
Storage
Disk Management
Disk Defragmenter
Logical Drives
Removable Storage
Services and Applications
Volume Layout Type File System Status Capacity
WIN2K (C:) Partition Basic FAT32 Healthy (System) 3.90 GB
ME (D:) Partition Basic FAT32 Healthy 1.95 GB
FREE (F:) Partition Basic FAT32 Healthy 11.19 GB
DATA (E:) Partition Basic FAT32 Healthy 1.95 GB
64MCF (G:) Partition Basic FAT Healthy (Active) 62 MB
(I:) Partition Basic FAT Healthy (Active) 124 MB
Disk 0 Basic 19.01 GB Online
WIN2K (C: 3.91 GB FA Healthy (Sy
ME (D:) 1.95 GB F Healthy
DATA (E: 1.95 GB FA Healthy
FREE (F:) 11.20 GB FAT Healthy
Disk 1 Unknown 3.03 GB Online
3.03 GB Unallocated
Disk 2 Removable 63 MB Online
64MCF (G:) 63 MB FAT Healthy (Active)
Disk 3 Removable 125 MB Online
(I:) 125 MB FAT Healthy (Active)
Unallocated Primary Partition Extended Partition Logical Drive

- Click *Next* in the write signature prompt and Upgrade Disk wizard prompt,

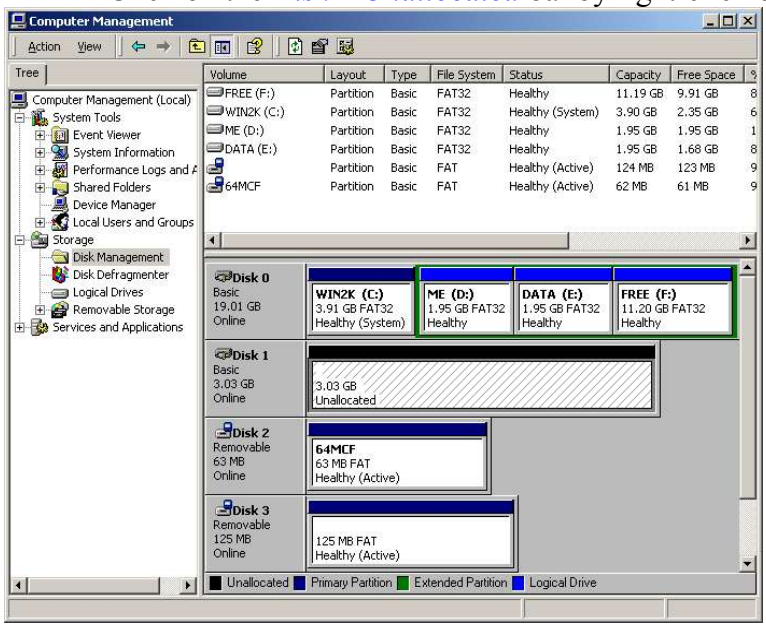
Write Signature and Upgrade Disk Wizard
Welcome to the Write Signature and Upgrade Disk Wizard.
This wizard writes signatures on new disks, and upgrades empty basic disks to dynamic disks.
You can use dynamic disks to create software-based RAID volumes, which can be mirrored and striped or spanned across disks. You can also expand single-disk and spanned volumes without having to restarting the computer.
After you upgrade a disk, you cannot use earlier versions of Windows on any volume on that disk.
To continue, click Next.
Do not show this wizard again
Next >
Cancel

- Tick on *Disk 1* option and follow through the instruction,
- The new HDD will create a Master Boot Record on the new hard disk,
- Proceed to create a new primary partition.

Write Signature and Upgrade Disk Wizard
Select Disk to Write Signature
Choose the disks on which you want to write a signature.
Select the disks on which you want to write a signature:
Disk 1
< Back
Next >
Cancel

6.5 Create Primary Partition Record on the new hard disk.

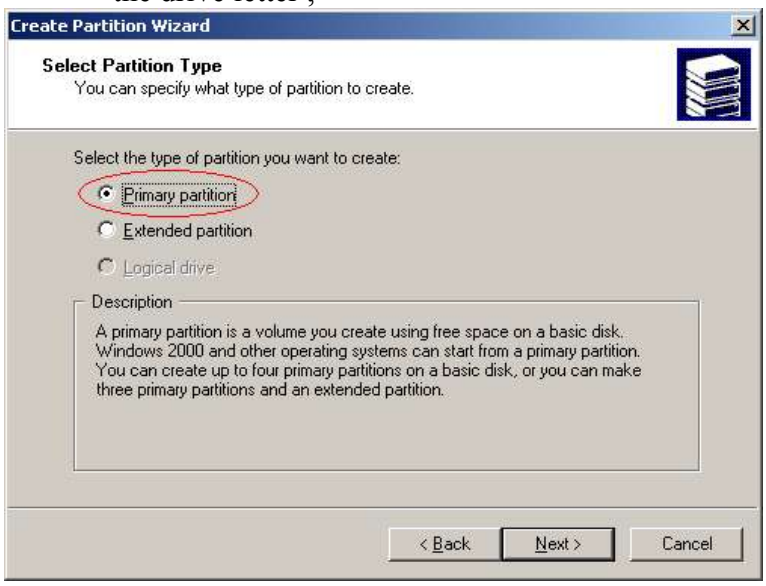
- After the HDD has created Master Boot Record (write signature), you nee to create a primary partition on your new hard disk.
- Click on the *Disk 1 Unallocated* bar by right-click of the mouse.

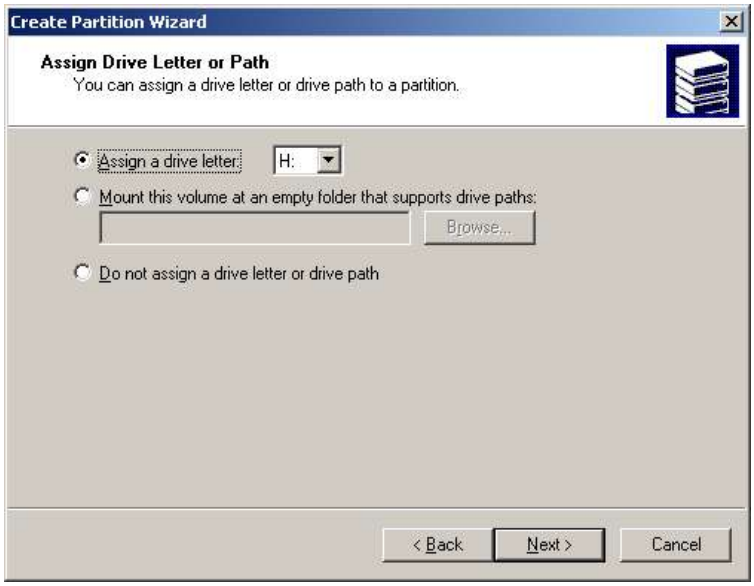

Computer Management
Action View
Tree
Computer Management (Local)
System Tools
Event Viewer
System Information
Performance Logs and A
Shared Folders
Device Manager
Local Users and Groups
Storage
Disk Management
Disk Defragmenter
Logical Drives
Removable Storage
Services and Applications
Volume Layout Type File System Status Capacity Free Space
FREE (F:) Partition Basic FAT32 Healthy 11.19 GB 9.91 GB
WIN2K (C:) Partition Basic FAT32 Healthy (System) 3.90 GB 2.35 GB
ME (D:) Partition Basic FAT32 Healthy 1.95 GB 1.95 GB
DATA (E:) Partition Basic FAT32 Healthy 1.95 GB 1.68 GB
Partition Basic FAT Healthy (Active) 124 MB 123 MB
64MCF Partition Basic FAT Healthy (Active) 62 MB 61 MB
Disk 0 Basic 19.01 GB Online
WIN2K (C:) 3.91 GB FAT32 Healthy (System)
ME (D:) 1.95 GB FAT32 Healthy
DATA (E:) 1.95 GB FAT32 Healthy
FREE (F:) 11.20 GB FAT32 Healthy
Disk 1 Basic 3.03 GB Online
3.03 GB Unallocated
Disk 2 Removable 63 MB Online
64MCF 63 MB FAT Healthy (Active)
Disk 3 Removable 125 MB Online
125 MB FAT Healthy (Active)
Unallocated Primary Partition Extended Partition Logical Drive

- Choose the *Create Partition* option, follow by *Next*,
  Note : Windows XP and Windows 2000 cannot support More than 32GB for FAT32 file system.

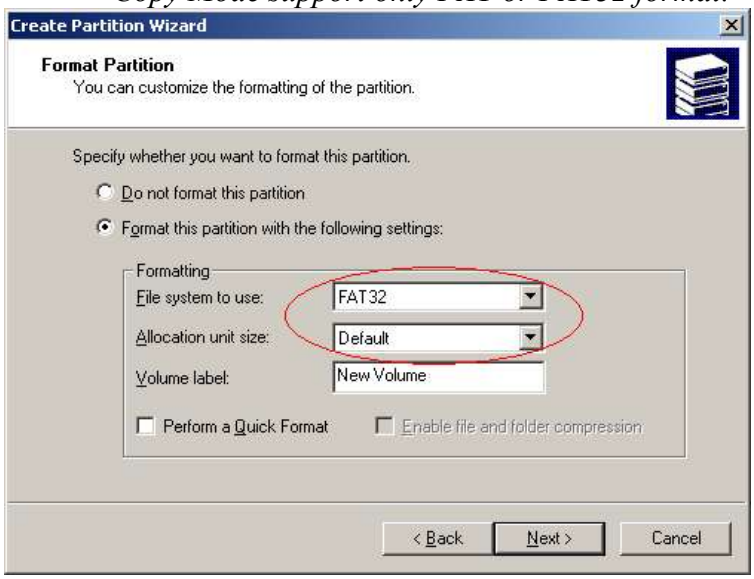
Create Partition Wizard
Welcome to the Create Partition Wizard
This wizard helps you create a partition on a basic disk.
A basic disk is a physical disk that contains primary partitions, extended partitions, and logical drives. A basic disk may also contain volumes created with Windows NT 4.0 and earlier. You can also use MS-DOS to gain access to partitions on basic disks.
To continue, click Next.
< Back
Next >
Cancel

- Choose the *Primary partition* option and let system assign the drive letter ,


Create Partition Wizard
Select Partition Type
You can specify what type of partition to create.
Select the type of partition you want to create:
Primary partition
Extended partition
Logical drive
Description
A primary partition is a volume you create using free space on a basic disk. Windows 2000 and other operating systems can start from a primary partition. You can create up to four primary partitions on a basic disk, or you can make three primary partitions and an extended partition.
< Back
Next >
Cancel


Create Partition Wizard
Assign Drive Letter or Path
You can assign a drive letter or drive path to a partition.
Assign a drive letter:
H:
Mount this volume at an empty folder that supports drive paths:
Browse...
Do not assign a drive letter or drive path
< Back
Next >
Cancel

- Choose the *FAT32* format, Default allocation unit size and follow through the on-screen instruction.
- ***Note :*** *Do not choose NTFS because the device Standalone Copy Mode support only FAT or FAT32 format.*



- The new HDD is formatted and ready to be used.